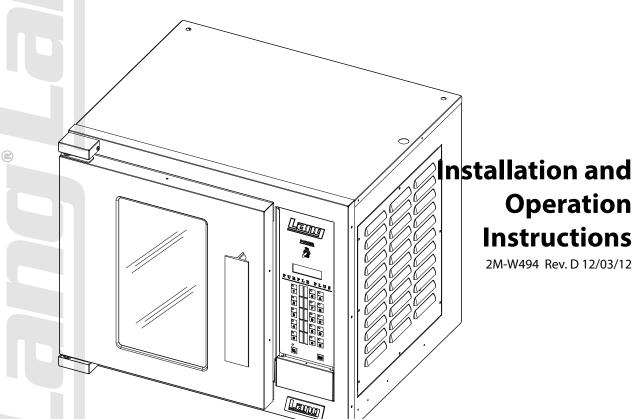


# ELECTRIC HALF SIZE COMPUTERIZED CONVECTION OVEN

**ECOH-PP** 



ECOH-PP





These symbols are intended to alert the user to the presence of important operating and maintenance instructions in the manual accompanying the appliance.

### **FOR YOUR SAFTEY**

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINTIY OF THIS OR ANY OTHER APPLIANCE.

### POST IN PROMINENT LOCATION

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.

### WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.



### WARNING





**WARNING,** TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE CONTROL PANEL. NO USER-SERVICABLE PARTS INSIDE.
REPAIRS SHOULD BE DONE BY AUTHORIZED SERVICE PERSONNEL ONLY.

### **NOTICE**

Using any part other than genuine Lang factory supplied parts relieves the manufacturer of all liability.

Lang reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

Due to periodic changes in designs, methods, procedures, policies and regulations, the specifications contained in this sheet are subject to change without notice. While Lang exercises good faith efforts to provide information that is accurate, we are not responsible for errors or omissions in information provided or conclusions reached as a result of using the specifications. By using the information provided, the user assumes all risks in connection with such use.

### MAINTENANCE AND REPAIRS

Contact your local dealer for service or required maintenance. Please record the model number, serial number, voltage and purchase & Installation Information in the area below and have it ready when you call to ensure a faster service.

Model No.:	 Purchased From:
Serial No.:	 Location:
Voltage:	 Purchase Date:
1-Phase or 3 Phase:	 Installed Date:



### **PROBLEMS, QUESTIONS or CONCERNS**

Before you proceed consult you authorized Lang service agent directory or

Call the Lang Technical Service & Parts Department at 314-678-6315.

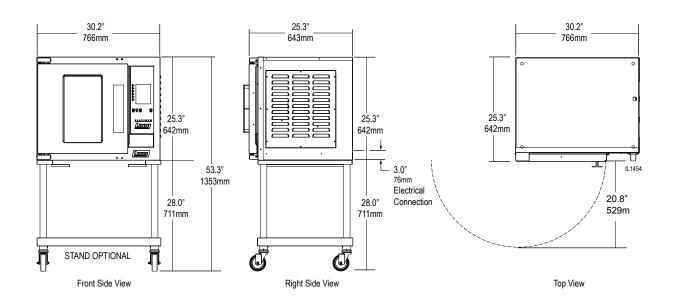
### **TABLE OF CONTENTS**

Specifications	1
Equipment Description	5
Unpacking	3
Installation	
Leg Installation	7
Stacking the Oven	7
Ventilation & Clearance	3
Electrical Connection	3
Oven Voltage	3
Reversing the door	)
Initial Start-Up	
Pre-Power On	0
Power On	0
General Operation & Programming	
Control Panel	1
Loading	2
Daily Operation	3
Program Menu Record Table	4
Programming Procedures	-16
Maintenance / Cleaning	7
Troubleshooting	
Symptoms & Possible Causes	8
Wiring Diagram	
ECOH-PP 208-240V WD61111-147	9
ECOH-PP 220-380V, 240V-415V w 2SPD CE WD61111-170 2	0
ECOH-PP 220-380V, 240-415V WD61111-151 2	1
ECOH-PP 480V WD61111-168	2
Exploded View & Parts List	-34

NOTICE

Service on this or any other Lang appliance must be performed by qualified personnel only. Consult your Lang Authorized Service Agent Directory. You can call our tech service number 314-678-6315 or visit our website www.langworld.com for the service agent nearest you.

SPECIFICATIONS										
Model	Height x Width x Depth (without optional stand)	Clearance from combustible surface		eight Shipping	Freight Class					
ECOH	25.3" x 30.2" x 25.3" 642mm x 766mm x 643mm	Side: 6", Back: 6", Floor: 6"	185 lbs. (84 kg)	225lbs (102 kg)	85					



			El	ectrical	Specificat	ions						
Model No	VOLTS AC	Hz.	MOTOR AMPS	PHASE	AMPS 3PH/ NTRAL	KW TOT.	AMPS 1 PH	WIRE 1 PH	L1	L2	L3	WIRE 3 PH
ECOH-PP2/4BK	240/415	50/60	3.3	3PH	11	7.8			11	10.5	10.5	12
ECOH-PP208BK	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PP208BR	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PP-208V	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PP-240V	240	60	2.6	13		7.8	33	8	20	18	20	12
ECOH-PP208WB	208	60	3.3	1/3		7.8	38	8	23	21	23	10
ECOH-PP240BK	240	60	2.6	1/3		7.8	33	8	20	18	20	12
ECOH-PP240WB	240	60	2.6	1/3		7.8	33	8	20	18	20	12

### **EQUIPMENT DESCRIPTION**

### **Exterior Construction**

The Top, Front, Back, and Sides are constructed of stainless steel with an aluminized bottom.

The oven exterior dimensions are:

30" (76.2 cm) Wide, 25.25" (74.3 cm) High, 26.5" (67.31 cm) Deep.

The oven door comes standard with a high temperature insulated window equipped with a polycarbonate handle.

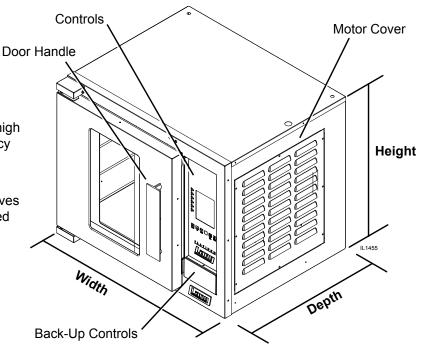
The oven cavity is insulated with high temperature insulation for efficiency and reduced heat loss.

### Interior Construction

The oven is designed for five shelves and comes with five Chrome Plated Racks.

The interior cooking chamber is constructed of stainless steel with dimensions of:

15" (38.1 cm) Wide, 20" (50.84 cm) High, 21" (53.38 cm) Deep.



### **Operation**

The ECOH oven is a forced air convection oven with a vented oven cavity.

The air is driven by a 1/3 HP fan motor.

### **Controls**

Pre-Programmable Product Selections

Independent Shelf Timers for each Shelf.

Shelf Compensation Timing for uniform baking.

### **Technical**

Oven operates as shipped 208V, or 240V (single or three phase), or 480V (three phase).

The oven can be shipped with a Power Cord and Plug attached, but must be specified upon ordering (part number is listed in the Parts portion of this manual).

Floor space required is 42" (106.68cm) Wide, 32.5" (82.55cm) Deep.

The oven weighs approximately 225 lb. (102.5 Kilograms).

The ovens are stackable, stacking kit available upon request.

### **NOTICE**

The data plate is on the back side of the oven above the power cord. The oven voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.

### **UNPACKING**

### Receiving the Oven

Upon receipt, check for freight damage, both visible and concealed. Visible damage should be noted on the freight bill at the time of delivery and signed by the carrier's agent. Concealed loss or damage means it does not become apparent until the merchandise has been unpacked. If concealed loss or damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within 15 days of delivery. All packing material should be kept for inspection. Do not return damaged merchandise to Star Manufacturing Company. File your claim with the carrier.



### Location

Prior to un-crating, move the oven as near to its intended location as practical. The crating will help protect the unit from the physical damage normally associated with moving it through hallways and doorways.

### **Un-crating**

The oven will arrive completely assembled inside a wood frame and strapped to a skid. Cut the straps and remove the wood frame.

The oven can now be removed from the skid.

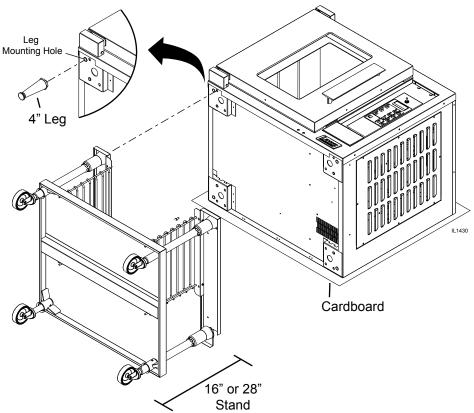


THE UNIT IS EXTREMELY HEAVY. FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.

ANY STAND, COUNTER OR OTHER DEVICE ON WHICH OVEN WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE OVEN.

SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.

### INSTALLATION



### Stacking the Ovens

Two alignment pins (pn: 2C-20108-11) are needed if you intend on stacking two ECOH on each other as shown. These pins must be requested at the time of purchase, or call your Lang authorized service agent, or Lang parts department at 314-678-6315.

Having completed the previous step remove any and all button plugs from the lower unit, so the upper unit will lay properly.

Lay the upper unit on its back and screw the alignment pins into the two rear holes.

With assistance lift the upper unit onto the lower unit, being certain that the alignment pins go into the alignment holes, as shown here.

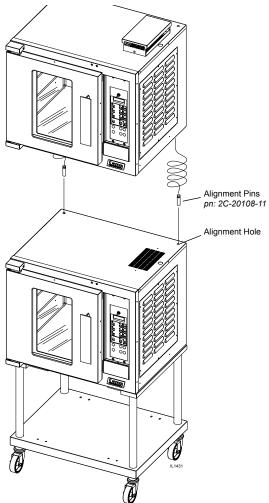
NOTE: Each unit must have separate electrical connections

### Leg Installation

4" legs are available for single countertop installations. Single and double deck installations require 16" or 28" stand installation, casters may also be used in certain situations.

To install the 4" legs, place some cardboard on the floor and gently tip the unit onto its back. Fasten the four, 4" legs into the threaded holes located on the bottom of the unit. Gently lift the oven into its operating position.

16" & 28" stand installation, after following the assembly instructions that were provided with the stand, gently lower unit on to some cardboard as shown here. Align the stand with the bottom of the unit and secure with the hardware provided. With the assistance of carefully raise the unit to its vertical position.



### **INSTALLATION** continued

### Ventilation and Clearances

Standard minimum clearance from combustible construction is as follows.

4" from side

4" from back

6" from floor

- These ovens may be set directly, without legs, on a curbed base or non-combustible floor.
- If the oven is set without legs on a non-combustible floor or a curbed base, maintain a 4-inch back clearance.
- If the oven is set directly against a non-combustible back wall, maintain a 6-inch clearance to the floor.
- Do not install the oven closer than 12 inches from an uncontrolled heat source (char broiler etc.) on the right side.
- · Keep the area free & clear of combustible material, and do not obstruct the flow of combustion or ventilation air.
- The installation of any components such as a vent hood, grease extractors, and/or fire extinguisher systems, must conform to the applicable nationally recognized installation standards.

### NOTICE

The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.

### **Electrical Connection**

The electrical connection must be made in accordance with local codes or in the absence of local codes with NFPA No. 70 latest edition (in Canada use: CSA STD. C22.1).

The electrical service entrance is provided by a 1 1/4-inch knockout at the oven back directly behind the control compartment. A grounding lug is provided at the rear service entrance.

Certain units are provided with or can be purchased with a Cord & Plug kit (Part number 9Q-ECOH-CK). This kit includes a 48" cord with a NEMA L15-30P plug and is for 3 Phase units ONLY. In stacked situations each units needs to have separate cord & plug assemblies.

### Oven Voltage

The Lang Model ECOH ovens can be operated on 208, 240-volt (single or three phase), or 240/415V, 480-volt (three phase only) source. The Amp draw, KW rating, and phasing can be found in specification section of this manual or on the nameplate attached to the unit...



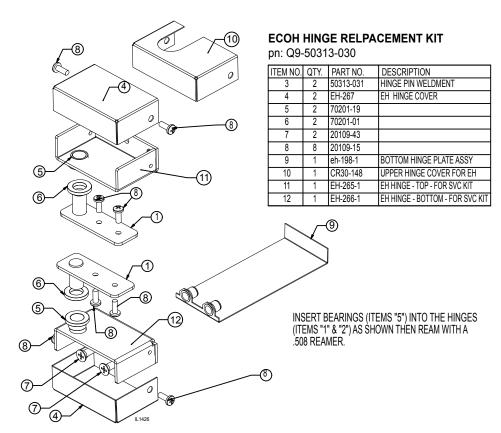
THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.



INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST WARNING BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.

### Reversing the door

- 1. Disconnect oven from power.
- 2. Remove the top and bottom door hinge covers (4) by removing the two 10-32 Phillip head screws (8).
- 3. Remove the top door hinge bracket (1) from the oven by removing the two ½-20 Phillip head screws (7). The hinge should now slide off of the door pin (this will now be your right hand lower hinge)
- 4. Lift the door off the bottom pin and set aside.
- 5. Remove the bottom door hinge bracket (2) by removing the two ½-20 Phillip head screws (7) (this will now be your upper right hand hinge).
- 6. Remove the lower hinge mounting plate (9) by pulling it from behind the leg pad adapter on the bottom of the oven.
- 7. Remove the two Phillips head screws in the bottom right corner of the oven, where the new hinge will be placed.
- 8. Slide the hinge mounting plate (9) into place and mount the hinge bracket (this should be your old upper hinge) using two 1/4-20 (7) Phillips head screws.
- 9. Remove the two Phillips head screws in the upper right corner of the oven where the new hinge will be placed.
- 10. Rotate the door 180° and slide the door pin into the bottom hinge bracket.
- 11. Slide the upper door hinge (1) onto the upper door pin and then screw into place using two ½-20 Phillip head screws.
- 12. Place the top and bottom door hinge covers (4) back on the oven using two 10-32 Phillip head screws (8).



### **INITIAL START UP**

### **Pre-Power On**

After the oven is installed and connected to power, prior to turning on, verify the following

- The door opens and closes freely
- All racks are in the oven correctly
- All packing materials have been removed from the inside of the oven

### Power On

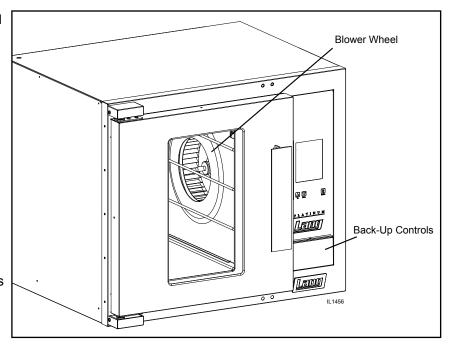
Once the oven has been turned on verify that the blower wheel is spinning freely in a clockwise position and that the elements are heating properly.

Switch the back-up controls on and make certain it can run the unit,

Confirm that the thermostat knob in the back-up controls is move freely.

### **USB** Connection

Units are now supplied with a USB connection, located with the the Back-Up Controls. This is for future programming needs of your unit and is not part of the units initial start-up or daily operation.



### NOTICE

During the first few hours of operation you may notice a small amount of smoke coming from the oven, and a faint odor from the smoke.

This is normal for a new unit and will disappear after the first few hours of use.

### **General Operation & Programming cont.**

### **ECOH-PP Control Panel**

The control panel consists of the following items. Detailed operational descriptions are given later this section.

Power Switch: Turns the oven on and off

Alpha Numeric Display: Displays your interface with the computer.

**Product Select Button:** Each button can be programmed for a specific menu, see programming

section to see how.

Shelf Select Button: Press to select which shelf the product will be placed on. "A" is the top position, "E" is the

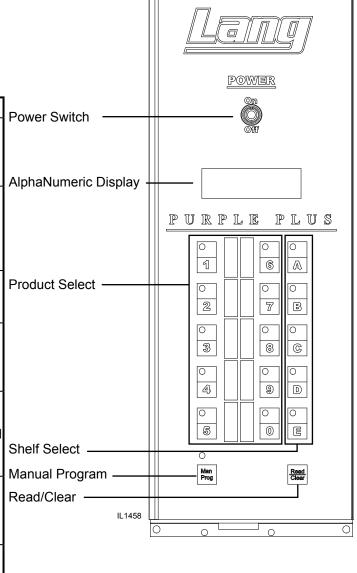
bottom position.

Manual Program Button: Used when product being cooked is for one time only.

Read / Clear Button: Used to read programs, clear programs, and to access program menus.

### **Typical Operation Sequence**

Action	Result
Turn power switch to <b>ON</b> .	Control panel comes on; display says "SELECT PRODUCT or READ/CLEAR TO PROGRAM.
Press a product button.	Display says "PRODUCT X PREHEATING TO XXX F". Motor starts and oven begins preheating to the programmed temperature.
Beeper sounds briefly.	Display says "READY SELECT PRODUCT TO START ".
Open the oven doors and load the product. Close the door and press the product button again.	Beeper sounds briefly and display says, "SELECT OVEN SHELVES PRODUCT X".
Press the shelf button(s) which correspond to the shelf positions, which the product is loaded (A equals the top shelf and E equals the bottom shelf).	Display shows a countdown timer and begins to count toward zero.
Beeper sounds continuously.	Display shows "DONE PRESS SHELF BUTTON X, REMOVE PRODUCT", shelf button(s) flash.
Press the flashing shelf button(s).	Beeper stops. Display shows  "READY SELECT  PRODUCT TO START" if no other shelves carry product or resume count down for shelves that still have product cooking.
Open oven door and remove the product, which corresponds to flashing shelf button(s).	



### **General Operation & Programming cont.**

### Loading

Here are some things to remember when loading your oven.

- When loading and unloading the oven, stage products and racks so the oven door is opened for the least amount
  of time.
- · Be sure that racks are level within the oven.
- Bent or warped pans can greatly affect the evenness of the cook or bake.
- If using baker's parchment, be sure the parchment does not blow over the product. That will create an uneven bake.
- Load each shelf evenly. Spaces should be maintained equally between the pan and oven walls, front and back.
- · Do not overload pan's this will create an uneven bake.
- For best baking results, load the oven from the center out during random loading.



ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.

KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.

## DAILY OPERATION PURPLE PLUS CONVECTION OVENS

ECOH-PP, ECOF-PP, GCOF-PP, ECO-PP, GCCO-PP

### **Daily Operation**

**Step 1:** Turn the Power Switch on by switching the toggle switch to the up position.

Step 2: Screen will appear as below.

Select the product you wish to bake by pressing the number key (0-9) for that product.

SELECT PRODUCT OR READ/CLEAR TO PROGRAM XX:XX PM XXX F

Step 3: Screen will display:

When the oven reaches the desired temperature, the screen will display:

PRODUCT 1
PREHEATING TO XXX F
XX:XX PM XXX F

**Step 4:** Open the oven door, place product in the oven. Close the oven door and press the program key you are using.

READY
SELECT PRODUCT TO START
XX:XX PM XXX F

**Step 5**: The display will now read:

Press the lettered keys indicating what shelves

SELECT OVEN SHELVES
PRODUCT 1
XXXF XX:XX:XX
XX:XX PM XXX F

you placed product on to bake (A is the top shelf).

If you do not select a shelf, the oven will beep and the following display will appear:

NO SHELF SELECTED PRESS E TO CONTINUE

Press the E Key and the previous display will appear, again asking to select oven shelves

**Step 6:** Once a shelf or shelves have been selected, the display will now read:

COOKING PRODUCT XX
TIER #1 XX:XX:XX
SELECT PRODUCT
XX:XX PM XXX F

At this time, you may select any other pre-set product program which has the same oven temperature. A lighted red light next to a numbered product key indicates that the program is compatible with the program selected, and can be run at the same time.

**Step 7:** When the bake time is concluded, the oven will beep and the display will read:

DONE
PRESS SHELF BUTTON
REMOVE PRODUCT
XX:XX PM XXX F

**Step 8:** Once you have completed baking on one pre-set program, you may change to another pre-set program by pressing the Read/Clear Key.

The display will now read:

SELECT PRODUCT OR READ/CLEAR TO PROGRAM

II 146

# PROGRAMMING PURPLE PLUS CONVECTION OVENS

ECOH-PP, ECOF-PP, GCOF-PP, EHS-PP, ECCO-PP, GCCO-PP

# Record Your Menus Before Entering Your Program.

Record your specific menu items using the table below, prior to entering them into your units program. Keep for your records.

		_	_	_	 	 	 _	_	 _	_
Product	Name	ex: Biscuits								
	Cooking Temp	325°F								
	Cooking Cooking Cooking Fan Time Curve Speed	12:30								
Tier 1	Cooking Curve	50%								
	Fan Speed	Ξ								
	Pulse Rate	100%								
	Cooking Cooking Temp Time Curve									
	Cooking Time									
Tier 2										
	Fan Speed									
	Pulse Rate									
	Cooking Temp									
	Cooking Cooking Time Curve									
Tier 3										
	Fan Speed									
	Pulse Rate									
	Cooking Temp									
	Cooking Cooking Temp Time Curve									
Tier 4	Cooking Curve									
	Fan Speed									
	Pulse Rate									

### PROGRAMMING PURPLE PLUS CONVECTION OVENS

ECOH-PP, ECOF-PP, GCOF-PP, ECO-PP, GCCO-PP

### **Before You Begin Programming**

- 1. For programming new ovens, you must program at least one button (position 2 through 0) before you can delete or replace the sample program in position one.
- 2. If you are programming for the first time after installing a new computer board, or blanking the EPROM, you must first complete the "CPU Start Up Procedure" that came with the new computer board before programming the product buttons
- 3. In preparation of programming you Purple Plus Oven, first determine the cooking parameters you will be using for each product to be programmed. Use the table on the following page to record your programs prior to entering them into your unit.

### **CPU Start Up Procedures**

If you are programming for the first time after installing a new computer board, or needed to blank the EPROM, you will be asked to complete the "CPU Start Up Procedures". You will be asked to identify the oven you are using, answer NO to questions regarding Steam and Rack Rotation, and 650°F max temperature.

### **Programming Procedures**

PROGRAMMING PROCEDURES						
ACTION	DISPLAY					
	SELECT PRODUCT OR					
Turn the power switch on. If the oven is already on, press the Read / Clear key until the following screen is displayed.	READ/CLEAR TO PROGRAM XX:XXPM XXXF					
Enter access code "1 6 2 7 3 8".	ENTER PASSWORD OR READ/CLEAR TO DISPLAY PRODUCT					
Select "B".	A: SET DATE / TIME B: PROGRAM PRODUCTS C: EDIT ACCESS CODE					
Select a number from 0-9 and press the key corresponding to that number.  NOTE: If a product Key selected already has a program, the screen will read.	PRODUCT PROGRAM MODE SELECT PRODUCT NUMBER 0-9					
If a product Key dose not have a program, the screen will read.	EDIT PRODUCT?  1=EDIT OR 2=DELETE  NXX TX XXXF CX  XX:XX:XX PXXX F-XX					
Enter a desired cooking / baking temperature. The screen will automatically advance to the next display.	ENTER COOKING TEMP 100 TO 450 F NOX T1 XXXF					
Enter the cooking time and then press "E" to advance to the next screen.	ENTER COOKING TIME HR:MIN:SEC NOX T1 XXXF CO					
Enter the desired cooking curve. (Refer to sections 6.3 and 6.7 for more detail)	ENTER COOKING CURVE 0 TO 100% NOX T1 XXXF CXX XX:XX:XX PXXX F-XX					

### PROGRAMMING PURPLE PLUS CONVECTION OVENS

ECOH-PP, ECOF-PP, GCOF-PP, EHS-PP, ECCO-PP

### **Programming Procedures continued**

PROGRAMMING PROCEDURES CONTINUED							
Select Fan speed. (Hi=1700 rpm, Low=1400)	ENTER FAN SPEED 1=HI 2=LOW NOX T1 XXXF CXX XX:XX:XX PXXX F-XX						
Select Fan Pulse rate. (0 to 100%). 0=off unless calling for heat. 100=on at all time. <b>NOTE:</b> Any number between 0-100 means that the fan will be on that many number of seconds in a 100-second block. (E.g. 67%= on for 67 seconds in a 100 second block)	ENTER FAN PULSE RATE 1 TO 100% NOX T1 XXXF CXX XX:XX:XX PXX F-XX						
If your press 1 you will go through the same sequence as outlined above. If you press 2 the next display will automatically appear.	CONTINUE TO TIER 2  1=YES 2=NO  NOX T1 XXXF CXX  XX:XX:XX PXXX F-XX						
If you wish to continue programming a separate menu item, press "B" and repeat the sequence. If you have completed your programming requirments, press Read/Clear butotn until the next display apprears	A: SET DATE / TIME B: PROGRAM PRODUCTS C: EDIT ACCESS CODE						
To begin using your oven, press the appropriate Product Select button. Refer to your Daily Operations Section of your Operations Manual to learn how to use your program.	SELECT PRODUCT OR  READ/CLEAR TO  PROGRAM  XX:XXPM XXXF						

### **MAINTENANCE**

- Oven interiors should be wiped down daily and thoroughly cleaned weekly using warm water and mild detergent. DO NOT use caustic cleaners.
- The appliance should be thoroughly checked at six-monthly intervals by a qualified technician (heating unit, mechanical stability, corrosion...) with particular emphasis on all control and safety devices.

### **CLEANING**

- · Always start with a cold oven.
- The stainless exterior can easily be cleaned using stainless steel cleaner.
- Always follow the cleaner manufacturer's instructions when using any cleaner.
- Care should be taken to prevent caustic cleaning compounds from coming in contact with the fan wheel.
- The oven racks, rack slides, may be cleaned outside the oven cavity using oven cleaner.
- Using any harsh chemicals will result in the removal of the ETC coating and etching of the
  porcelain below it. The oven interior should only be cleaned using a mild soap and a non metal scouring
  pad.

DO NOT use caustic cleaners.

· Always apply stainless steel cleaners when the oven is cold and rub in the direction of the metal's grain.



KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.



MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING.

CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.

NEVER LEAVE A CHLORINE SANITIZER IN CONTACT WITH STAINLESS STEEL SURFACES LONGER THAN 10 MINUTES. LONGER CONTACT CAN CAUSE CORROSION.

### **Troubleshooting**

### Symptoms & Possible Causes

The following are charts of Symptoms and Possible Causes to aid in diagnosing faults with your unit.

Refer to the symptoms column to locate the type of failure then to the Possible Cause for the items to be checked.

To test for a possible cause refer to test to identify test procedures. Test indicated with an "\*" should be done by a Lang factory authorized service representative.

Symptoms	Possible Cause	
	No power to cord outlet	
	Oven unplugged from outlet	
Power indicator is not lit	Failed Power cord or plug	
	Failed power switch	
	Failed indicator light	
	Power Switch is not "ON"	
	Failed Transformer	
	Failed Probe	
Oven will not heat	Failed Circuit board	
	Failed Contactor	
	Failed Over-temperature Thermostat	
	Failed Element	
	Power Switch is not "ON"	
Oven motor will not	Failed Transformer	
run	Failed Contactor	
	Failed Motor	
	Product is cooked too long	
Product burning	Failed Probe	
	Failed Circuit board	
Product is under	Product is not cooked long enough	
done	Failed Probe	
	Failed Circuit board	

Possible Cause	Test
Product is cooked too long	No test available, operational condition
Failed Probe	Check probe for proper resistance*
Failed Circuit board	Confirm that Circuit board is getting correct voltage and putting out correct voltage*
Failed Transformer	Check both Primary and Secondary coils for correct voltage*
Failed Contactor	Remove the wires from the contactor coil and check for continuity across the contactor coil connection*
	Ensure the contactor moveable points move freely up and down*
Failed Motor	Confirm that motor is getting correct voltage*
Failed or disconnected safety thermostat	Check across the thermostat connectors for continuity*
Failed Element	Confirm that Elements are getting correct voltage and have continuity*

NOTICE

If an item on the list is followed by an asterisk (\*), the work should be done by a Lang factory authorized service representative.



USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.

NOTICE

Service on this or any other Lang appliance must be performed by qualified personnel only. Consult your Lang Authorized Service Agent Directory. You can call our tech service number 314-678-6315 or visit our website www.langworld.com for the service agent nearest you.



BOTH HIGH AND LOW VOLTAGES ARE PRESENT INSIDE THIS APPLIANCE WHEN THE UNIT IS PLUGGED/WIRED INTO A LIVE RECEPTACLE. BEFORE REPLACING ANY PARTS, DISCONNECT THE UNIT FROM THE ELECTRIC POWER SUPPLY.